

C.—Lopping for fodder, “Ráb” and leaf-gathering.

§ 19.—*Spécies loppéd.*

This practice is especially common in the Himalayan forests, both for litter and for fodder. At lower elevations, *Grewia*, the wild olive, *Pistacia integerrima*, and at higher elevations, oaks, elms, mulberry (*Morus serrata*) and maples, are lopped for fodder; deodar and pines are cut for litter; the leaves are afterwards used for manure, and the woody parts are burned for fuel.

In Bombay and South India lopping of trees, and bamboos, is extensively practised for what is called “ráb cultivation;” weeds and brushwood, or else boughs of trees or bamboos, are dried and burned, and the ashes, mixed with manure, are dug into the soil. This practice is looked on as essential to rice cultivation¹.

There is no doubt that in the Himalaya, what with the poverty of the cereal cultivation, and the absence of fodder crops or natural herbage that can be dried and stored for winter use, the lopping of trees for fodder becomes simply indispensable to the villagers. To some extent it must be allowed: but in all cases, I may take it for granted that no trees of valuable kinds will be allowed to be

¹ In some places it is held (as in the Bombay Presidency) that this ráb is not a right but only a license. This does not indeed make any great difference as long as it is determined to allow the practice; but as it is no doubt one of the greatest obstacles to forest conservancy in this part of India, the recognition of the fact that there is no such right, may be valuable in enabling this practice in time, to be stopped. There is little doubt that at present, such a plan is really necessary; but it is so in the sense that a manure such as wood and leaf-ash is needed, and that an efficient and cheap substitute has not yet come into vogue.

Ráb, where allowed at all, is variously regulated in Bombay. In some places (for instance, in the Mahabaleshwar Five-mile Reserve) people are only allowed to cut six kinds of annually growing vegetation in the forest. In Kolába and elsewhere, they are allowed to cut all herbage and to lop 23 kinds of trees. In Thána, all trees but 18 reserved kinds, may be lopped. It is now intended to regulate ráb cutting by opening and closing blocks in rotation. In some places (as in the Konkan) the fields themselves are manured with dry fish, or by folding sheep during the winter on the land, but the nurseries in which the young rice plants are reared are manured with ráb. First, a layer of dung is put on the beds, then grass and bushes, then some pulverized earth, and grass over all. This is buried and dug into the ground. It is, however, found in the Conservation of the North Division, quite sufficient that herbage, not trees, should be cut.

cut in this way. For example, belts of oak in or outside the deodar forests may be assigned to this right, and all injury to the deodar itself be prohibited².

I have not yet met with any instance where lopping has been regulated to any specified quantity.

Two measures, however, are possible; first, it may be required that the trees may not be lopped beyond a certain height up the stem, or that a certain proportion of branches be left; next (which is even more important) that the trees may only be lopped at intervals, a season for rest and recovery being allowed. It may also be possible, as has recently been proposed in Bombay, to plant belts of umbrageous and very quickly growing trees on purpose to supply branches for lopping.

In the Austrian law it is provided³ that only two-thirds of the whole stem length may be lopped at all, and then only one-third of the stronger branches removed, weak ones being left.

This is too elaborate for hill villages in India: it would be possible, however, to confine lopping to a certain height up the stem, or even to require a certain number of branches to be left uncut.

§ 20.—*Rotation.*

It must always be arranged that the trees should get one year's, and if possible two years' rest after lopping. In villages where trees are abundant, it will be often found that it is the native custom to allow a rotation of this sort.

§ 21.—*Season.*

The lopping also must be only at a proper season: it should be *after* the full year's growth has been attained: and it usually is so

² I do not allude to cases where isolated deodars overhanging fields are lopped to prevent the effect of their shade, nor to cases where one kind of tree is lopped in the forest to favour a more valuable kind. Thus, in mixed forest, where it is not easy to afford to cut out *Pinus excelsa* which oppresses deodar, it is possible to let villagers lop it, which they will often be glad to do.

³ Art. 12. It is to be confined, as far as possible, to forest compartments about to be felled. The French Code only alludes to lopping (Art. 150) in strips at the edge of the forest (*lisière*), and where it is a question of over shadowing crops and preventing their growth.

by custom, because then the rains are over and they begin to store the boughs for winter use.

If in any case it is permitted to lop trees of one kind scattered through a forest of other kinds which are not to be touched, the lopping ought to be done on fixed days, so that it may be done under supervision.

It will be observed that most of these restrictions are virtually in the interest of the villages themselves. Any excess or abuse in lopping will kill the trees in a very short time. If then the villages are to be kept provided with fodder without either devastating an immense area of country or coming at last to destroy valuable trees because none other are left, the practice *must* be kept within bounds.

§ 22.—*Continental law on the subjects.*

With the exception of the Austrian law alluded to, the continental text-books do not acknowledge such a right. Eding mentions a right to pick leaves off with the hand. This right of course never extends to the use of any cutting instrument whatever. Seedlings may not be touched, but only the side twigs and branches of well-grown trees⁴.

§ 23.—*Leaf gathering in India.*

Besides lopping for the purposes indicated, the rights which come under this head, in India, are few. In Burma leaves of *Careya* and other species are gathered for wrapping cigarettes in the Burma fashion. In the Panjáb, and elsewhere, leaves of *Butea frondosa* and of *Bauhinia Vahlia* are used for making plates, cups and even covers for the floors or table on which the food dishes are set. The leaves are sewn together (sometimes in elaborate patterns) with little splints of grass or straw. Umbrellas made of leaves fixed on a bamboo frame are also common in some places. Other instances

⁴ See also Pfeil, p. 50, § 12. He remarks that this right may sometimes prove useful by helping poor people to maintain a couple of goats or sheep, which is, a great thing for them. The right, carefully exercised, does no harm, if the leaves are taken when growth is over or before the leaves begin to turn to fall.